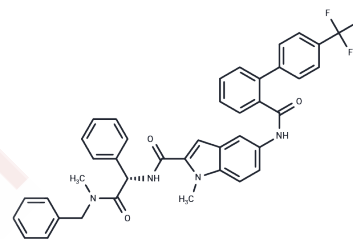


## Dirlotapide

## Chemical Properties

CAS No. :	481658-94-0
Formula:	C40H33F3N4O3
Molecular Weight:	674.71
Storage:	Keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Dirlotapide (CP742033) is an MTP inhibitor, an intestine-selective microsomal triglyceride transfer protein inhibitor that reduces food intake by increasing peptide YY release, and is used for weight reduction in diabetic dogs.
Targets(IC50)	MTP,MTP
In vitro	<b>Methods:</b> Human liver microsomes and recombinant CYP3A4 were used to incubate Dirlotapide (20 µM) for metabolic phenotyping and metabolite identification. <b>Results:</b> Dirlotapide was primarily metabolized by CYP3A4, with N-debenzylation (M5) as the main metabolic pathway, and demethylation and phenyl hydroxylation as minor pathways.[1]
In vivo	<b>Methods:</b> A parallel-design, placebo-controlled study was conducted in obese dogs. Dirlotapide was administered orally with body weight-adjusted dosing for 16 consecutive weeks, with body weight monitored and doses adjusted every 2 weeks; the control vehicle was not specified. <b>Results:</b> The Dirlotapide group achieved an average body weight reduction of 14.0%, significantly superior to the 3.0% reduction in the placebo group. After drug discontinuation, body weight increased only slightly over 8 weeks (2.6% total), with overall weight loss effects maintained.[2]

## Solubility Information

Solubility	DMSO: 262.5 mg/mL (389.06 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

### Preparing Stock Solutions

---

	1mg	5mg	10mg
1 mM	1.4821 mL	7.4106 mL	14.8212 mL
5 mM	0.2964 mL	1.4821 mL	2.9642 mL
10 mM	0.1482 mL	0.7411 mL	1.4821 mL
50 mM	0.0296 mL	0.1482 mL	0.2964 mL

---

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Hao Sun, Andrew J. Bessire, Alfin Vaz, Dirlotapide as a model substrate to refine structure-based drug design strategies on CYP3A4-catalyzed metabolism, *Bioorganic & Medicinal Chemistry Letters*, Volume 22, Issue 1, 2012, Pages 371-376, ISSN 0960-894X.

Krecic, Matthew R. Should the canine weight-loss drug dirlotapide be resurrected?. *American journal of veterinary research* vol. 86, 12 ajvr.25. 05. 0175. xml. 29 Aug. 2025, doi:10.2460/ajvr.25. 05. 0175

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481